

**PULSE JET PRINT HEAD HAVING MULTIPLE PRINthead DIES AND METHODS FOR USE
IN THE MANUFACTURE OF BIOPOLYMERIC ARRAYS**

ABSTRACT OF THE DISCLOSURE

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Pulse jet printheads having multiple printhead dies and methods for their use in the deposition of fluids, typically fluids containing a biopolymer or precursor thereof, onto a substrate surface are provided. The subject printheads are characterized by having multiple printhead dies bonded to a surface of an

10 orifice plate having multiple orifices to produce a printhead having at least one firing chamber, and typically a plurality of firing chambers. Also provided are printhead assemblies that include the subject printheads. In using the subject printheads and assemblies thereof, the firing chamber(s) is loaded with a volume of aqueous fluid that includes a biopolymer or precursor thereof. The loaded

15 printhead is then placed in opposing relation to a surface of a substrate and actuated to deposit a volume of fluid on the substrate. The subject printheads and assemblies thereof find use in a variety of applications, including the production of biopolymeric arrays.